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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Headquarters Program Lead Consultation

Office of Superfund Remediation and Technology Innovation (OSRTI)

MEMORANDUM

Date: March 1, 2017

Subject: Headquarters Program Lead Consultation: OSRTI review of the preferred alternative for Operable Unit (OU) 2, Diamond Head Oil Refinery Superfund Site, Kearny Township, New Jersey

From: Dana Stalcup
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To: Brittany Hotzler
US EPA Region 2

Request

This memorandum responds to the request for a consultation with Headquarters (HQ), as recommended by the December 22, 2016 Memorandum, "Updated Scientific Considerations for Lead in Soil Cleanups" (OLEM Directive 9200.2-167) on the Diamond Head Oil Refinery Superfund Site, Kearny Township, New Jersey. The consultation takes into consideration of the recommendations provided by the Technical Review Workgroup (TRW) Lead Committee dated February 24, 2017.

Background

The Diamond Head Oil Refinery Superfund Site, located near the Hackensack Meadowlands at 1401 Harrison Avenue, Kearny, New Jersey, was the location of a former oil reprocessing facility. The oil reprocessing facility operated from 1946 to early 1979. During facility operations, multiple aboveground storage tanks and possibly subsurface pits were used to store oily wastes. These wastes were intermittently discharged directly to adjacent properties to the east, and to the wetland area on the south side of the Site, creating an "Oil Lake."

The Site is comprised of a 15-acre unoccupied parcel that includes wetland areas, a drainage ditch, a small wetland/pond, a vegetated landfill area along the western border, and the remnants of the former Diamond Head Oil Refinery on the eastern portion of the Site. Land use surrounding the Site is industrial/commercial and open space/wetlands, with the nearest residential area located a half-mile to the west.

The Site was added to the NPL September 2002.

Current Status

The region has developed a draft Proposed Plan for operable unit (OU) 2 and the preferred alternative for OU 2 will address lead and other contamination in soil and sediment at the Site. The concentration of lead detected in surface soil (0-2 feet (ft) below ground surface (bgs)) ranges from 30.9 parts per million (ppm) to 27,900 ppm. Lead detections in subsurface soil (2-5 ft bgs) range from 2 ppm to 37,200 ppm. Lead detections at intervals from 5 ft bgs to 30 ft bgs range from 2.6 ppm to 310 ppm. The concentration of lead detected in sediment from 0-3 ft bgs ranges from 67 ppm to 84,400 ppm. The proposed remedial action includes:

- Lead contaminated soil in the eastern portion of the Site (Areas B and C) will be excavated to an approximate depth of 2 ft bgs and consolidated in the western portion of the Site (Area A). A two-foot soil cover will be placed over the entire site to eliminate potential risk associated with direct contact with surface and subsurface soil.
- RCRA characteristic waste will be removed and disposed of off-site prior to the consolidation of soils from Areas B and C, and their placement in Area A. The contaminated media in Area A has contaminant concentrations that are as high or higher than those that will be consolidated in this area from Areas B and C, and therefore will not result in any dilution of contaminated soils on site.
- Institutional controls will be implemented to maintain the integrity of the soil cover.
- Lead contaminated sediment in the drainage ditch along I-280 will be excavated to an approximate depth of 18 inches and disposed offsite at a RCRA Subtitle D Landfill since the media does not contain a RCRA hazardous waste. Eighteen inches of stone bedding will be added to the drainage ditch.

The lead preliminary remediation goal for soil and sediment is 800 ppm.

Result of HQ Program Consultation

OSRTI agrees that the region should proceed with the preferred alternative for OU 2 and recommends the following:

- The Proposed Plan and Record of Decision (ROD) should present the basis for action with respect to lead contamination in soil and sediment for all areas for which there will be a response. For areas for which action is not triggered for other contaminants, the basis for action for lead is generally the PRG.[1]

[1] As noted in the Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action (OSWER9355.4-12) August 1994, "When the PRG or MCS is exceeded, remedial action is generally recommended. Such action does not, however, necessarily involve excavating soil."

- The summary of site risks in the Proposed Plan and ROD should include the results of the risk assessment that was performed for lead (see accompanying TRW Consultation Memo dated February 23, 2017). As noted in the TRW Consultation memo: "The resulting PRG value using the latest information from NHANES (2009-2014) is 784 ppm incorporating the Region 2 proposed adjusted adult soil and dust ingestion rate and a target blood lead level of 5 μg/dL." The region's proposed PRG of 800 ppm is based on the promulgated NJDEP's Non-Residential Direct Contact Soil Remediation Standard that is generally a "to be considered" level for lead. We support the use of 800 ppm as the protective cleanup level since the 784 ppm value may be rounded to 800 ppm. The Proposed Plan and ROD should describe how this PRG is protective.
- In addition to LNAPL, the region should document whether other principal threat waste may be present at the Site (e.g., 84,000 ppm lead).

If information changes and/or if further action beyond the proposed actions is considered, the region should again consult with HQ.